

Model 375-600 Digital Radiation Monitor

Features

- Integrated Measurement System
- Internal Scintillator Detector
- User-Programmable Alarm Settings
- Highly Visible Red Strobe Alert
- Audio and Visual Alarms
- Networkable, Requires Ethernet or Webpage Option
- 8-Hour Battery Backup



Introduction

The Model 375-600 is a highly integrated, high-sensitivity gamma measurement system that combines all components into one convenient package, thus making installation simpler and less costly. The internal detector is a 10.3 L (630 in³) plastic scintillator shielded on five sides with 0.32 cm (0.125 in.) lead. The controller is Ludlum's popular Model 375 digital controller, which is located at one end of the cabinet. A red strobe is mounted on the top along with a large, industrial strength alarm acknowledgement pushbutton. The detector is accessible from a removable panel, and the entire system sits on a plate, which can be bolted to the floor.

Specifications

Part Number: 48-3458

DETECTOR: internal 10.3 L (630 in³) lead shielded plastic scintillator, Dimensions: 38 x 71 x 3.8 cm (15 x 28 x 1.5 in.)

SENSITIVITY: typically 30 kcpm per $\mu\text{R/hr}$ (¹³⁷Cs)

SHIELDING: 0.32 cm (0.13 in.) lead, on five sides

DISPLAY: 4-digit LED display with 2 cm (0.8 in.) digits

DISPLAY RANGE: 000.0 to 9999

DISPLAY UNITS: kcpm (other units available upon request)

LINEARITY: readings within 10% of true value with detector connected

RESPONSE: typically 3 seconds from 10% to 90% of final reading

INDICATORS:

- STATUS: green light indicates instrument functioning properly
- LOW ALARM: yellow LOW ALARM light and slow beep, can be set at any point from 0.0 to 9999
- HIGH ALARM: red HIGH ALARM light and fast beep, can be set at any point from 0.0 to 9999
- SIGMA ALARM (optional): red light and rapid beep
- DET FAIL: red light and audible tone, indicates detector overload, no count from detector, or instrument failure
- LOW BAT: yellow light, indicates less than 2 hours of battery power remaining

- OVERLOAD: "-OL-" display and audible FAIL alarm indicates detector saturation

- OVERRANGE: "---" display and activated low and high alarms indicates measured radiation field has exceeded the counting range

AUDIO: Intensity varies from approx. 69 dB to 100 dB through operation of the external rotary baffle and the internal voltage connection. Frequency is approx. 3 kHz.

CALIBRATION CONTROLS: accessible from the front of the instrument (protective cover provided)

REMOTE (optional): Ludlum Model 271 or Model 272

DATA OUTPUT: 9-pin connector for 5-decade log output, RS-232 output, signal ground connection, DET FAIL and HIGH ALARM signals, and direct connection to battery and ground.

POWER: 95 - 135 Vac (178 - 240 Vac available), 50 - 60 Hz single phase, 6 volt sealed lead-acid rechargeable battery (built-in)

BATTERY LIFE: typically 8 hours in non-alarm condition

BATTERY CHARGER: battery is continuously trickle-charged when instrument is connected to line power and turned on

CONSTRUCTION: steel housing with aluminum door, ivory powder coat finish

TEMPERATURE RANGE: -20 to 50 °C (-4 to 122 °F), may be certified for operation from -40 to 65 °C (-40 to 150 °F)

SIZE: 61 x 91.5 x 30.5 cm (24 x 36 x 12 in.) (H x W x D)

WEIGHT: 60.8 kg (134 lb)

Options: Various options are available for Model 375 systems, including remote displays, alarm annunciators, signal output, and networking options. Visit our website to view the current list of available options.

Ludlum Measurements, Inc. P.O. Box 810, Sweetwater, Texas 79556

Web: ludlums.com Tel: 800-622-0828 / 325-235-5494 Fax: 325-235-4672 Email: sales@ludlums.com

Note: specifications subject to change without notification. We are not responsible for errors or omissions.